

CLAIMS

1. An IC card of a first standard comprising:

- (a) a plurality of external terminals;
- (b) a detector which detects the voltage level of a predetermined terminal among said external terminals;
- (c) a mode controller which is connected to said detector; and
- (d) a first-mode interface controller corresponding to the first standard and a second-mode interface controller corresponding to a second standard, with said interface controllers being connected to said mode controller,
- (e) said mode controller including means of selecting said first-mode interface controller or second-mode interface controller in accordance with the output signal of said detector.

2. An IC card of a first standard comprising:

- (a) a plurality of external terminals;
- (b) a detector which detects the voltage level of a predetermined terminal among said external terminals;
- (c) a mode controller which is connected to said detector; and
- (d) a first-mode interface controller corresponding to the first standard, a second-mode interface controller corresponding to a second IC card standard, and a third-mode interface controller corresponding to a third standard

as a terminal standard, with said interface controllers being connected to said mode controller,

(e) said mode controller including means of selecting said first-mode interface controller, second-mode interface controller or third-mode interface controller in accordance with the output signal of said detector.

3. An IC card according to claim 2, wherein said detector includes means of detecting a pull-down voltage or a pull-up voltage.

4. An IC card according to claim 2, wherein said first standard is the multimedia card standard, said second standard is the memory stick standard, and said third standard is the USB standard.

5. An IC card according to claim 2, wherein said first-mode interface controller has at least two or more bit modes, and switches the bit mode depending on the response to the issuance of a command signal to any of said external terminals.

6. An IC card according to claim 5, wherein one bit mode among said at least two or more bit modes is correspondent to the SD card standard.

7. A card adapter having an interior space which fits the profile of an IC card of a first standard and having a profile of an IC card of a second standard, said adapter comprising:

(a) a plurality of first external terminals;

(b) a plurality of internal terminals which are disposed at positions to be in contact with a plurality of second external terminals of an IC card of the first standard when said IC card is set in said adapter interior space;

(c) wiring lines which connect between said first external terminals and said internal terminals; and

(d) a resistor which is connected between a first external terminal, with a supply voltage or ground voltage being applied thereto, among said first external terminals and an internal terminal.

8. A card adapter according to claim 7 further including:

(e) a mechanically-operated switch which is connected between the first external terminal, with said resistor being connected thereto, and another first external terminal.

9. A card adapter according to claim 7, wherein said internal terminals have a generally rectangular profile in plan and are laid out to have their long side extending along the card insertion direction of the first standard.

10. A card adapter according to claim 7, wherein said internal terminals are formed to swell in the cross section taken along the card insertion direction of the first

standard.

11. A card adapter according to claim 7 having no semiconductor chip connected between said first external terminal and said internal terminal.

12. A card adapter according to claim 7 including:

(e) none of said resistor; and

(f) a semiconductor chip connected between said first external terminal and said internal terminal,

said semiconductor chip having no formation of a circuit which is used for the writing and reading of an IC card of the second standard.

13. A card adapter according to claim 7, wherein said first standard is the multimedia card standard and said second standard is the memory stick standard.

14. A card adapter having an interior space which fits the profile of an IC card of a first standard, said adapter comprising:

(a) a plurality of first external terminals which are conformable to the USB standard;

(b) a plurality of internal terminals which are disposed at positions to be in contact with a plurality of second external terminals of an IC card of the first standard when said IC card is set in said adapter interior space;

(c) wiring lines which connect between said first

external terminals and said internal terminals; and

(d) a resistor which is connected between a first external terminal, with a supply voltage or ground voltage being applied thereto, among said first external terminals and an internal terminal.

15. A card adapter according to claim 14, wherein said internal terminals have a generally rectangular profile in plan and are laid out to have their long side extending along the card insertion direction of the first standard.

16. A card adapter according to claim 14, wherein said internal terminals are formed to swell in the cross section taken along the card insertion direction of the first standard.

17. A card adapter according to claim 14 having no semiconductor chip connected between said first external terminal and said internal terminal.

18. A card adapter according to claim 14 including:

(e) none of said resistor; and

(f) a semiconductor chip connected between said first external terminal and said internal terminal, said semiconductor chip having no formation of a circuit which is used for the writing and reading based on the USB standard.

19. A card adapter according to claim 14, wherein said first standard is the multimedia card standard.

20. A card adapter having an interior space which fits the profile of an IC card of a first standard and having a profile of an IC card of the SD card standard, said adapter comprising:

(a) a plurality of first external terminals;

(b) a plurality of internal terminals which are disposed at positions to be in contact with a plurality of second external terminals of an IC card of the first standard when said IC card is set in said adapter interior space;

(c) wiring lines which connect between said first external terminals and said internal terminals.

21. A card adapter according to claim 20, wherein said internal terminals have a generally rectangular profile in plan and are laid out to have their long side extending along the card insertion direction of the first standard.

22. A card adapter according to claim 20, wherein said internal terminals are formed to swell in the cross section taken along the card insertion direction of the first standard.

23. A card adapter according to claim 20 having no semiconductor chip connected between said first external terminal and said internal terminal.

24. A card adapter according to claim 20, wherein said first standard is the multimedia card standard.

25. (a) An IC card of a first standard comprising:

- (a1) a plurality of first external terminals;
- (a2) a detector which detects the voltage level of a predetermined terminal among said first external terminals;
- (a3) a mode controller which is connected to said detector; and
- (a4) a first-mode interface controller corresponding to the first standard, a second-mode interface controller corresponding to a second IC card standard, and a third-mode interface controller corresponding to a third standard as a terminal standard, with said mode interface controllers being connected to said mode controller,

said IC card being adapted to be set in:

- (b) a card adapter which has an interior space which fits the profile of an IC card of the first standard and has a profile of an IC card of the second standard, said adapter comprising:
 - (b1) a plurality of second external terminals disposed in said terminal section;
 - (b2) a plurality of internal terminals which are disposed at positions to be in contact with the first external terminals of an IC card of the first standard when said IC card is set in said adapter interior space;
 - (b3) wiring lines which connect between said second external terminals and said internal terminals; and

(b4) a resistor which is connected between a second external terminal, with a supply voltage or ground voltage being applied thereto, among said second external terminals and an internal terminal,

said IC card having:

(c) said detector connected to said second external terminal, with said resistor being connected thereto, and detecting a varied voltage caused by said resistor; and

(d) said mode controller selecting the second-mode interface controller based on the result of detection by said detector.

26. An IC card according to claim 25, wherein said first standard is the multimedia card standard, said second standard is the memory stick standard, and said third standard is the USB standard.

27. An IC card of a first standard comprising:

(a1) a plurality of first external terminals;

(a2) a detector which detects the voltage level of a predetermined terminal among said first external terminals;

(a3) a mode controller which is connected to said detector; and

(a4) a first-mode interface controller corresponding to the first standard, a second-mode interface controller corresponding to a second IC card standard, and a third-mode interface controller corresponding to a third standard

as a terminal standard, with said mode interface controllers being connected to said mode controller,

said IC card being adapted to be set in:

(b) a card adapter which has an interior space which fits the profile of an IC card of the first standard and has a terminal section of the third standard, said adapter comprising:

(b1) a plurality of second external terminals disposed in said terminal section;

(b2) a plurality of internal terminals which are disposed at positions to be in contact with the first external terminals of an IC card of the first standard when said IC card is set in said interior space of adapter;

(b3) wiring lines which connect between said second external terminals and said internal terminals; and

(b4) a resistor which is connected between a second external terminal, with a supply voltage or ground voltage being applied thereto, among said second external terminals and an internal terminal,

said IC card having:

(c) said detector connected to said second external terminal, with said resistor being connected thereto, and detecting a varied voltage caused by said resistor; and

(d) said mode controller selecting the third-mode interface controller based on the result of detection by

said detector.

28. An IC card according to claim 27, wherein said first standard is the multimedia card standard, said second standard is the memory stick standard, and said third standard is the USB standard.